



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 23, 2013

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-4105682, issued to HORIZON ENERGY CORPORATION, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: PARKER NO. 6-A

Farm Name: HFP, LLC

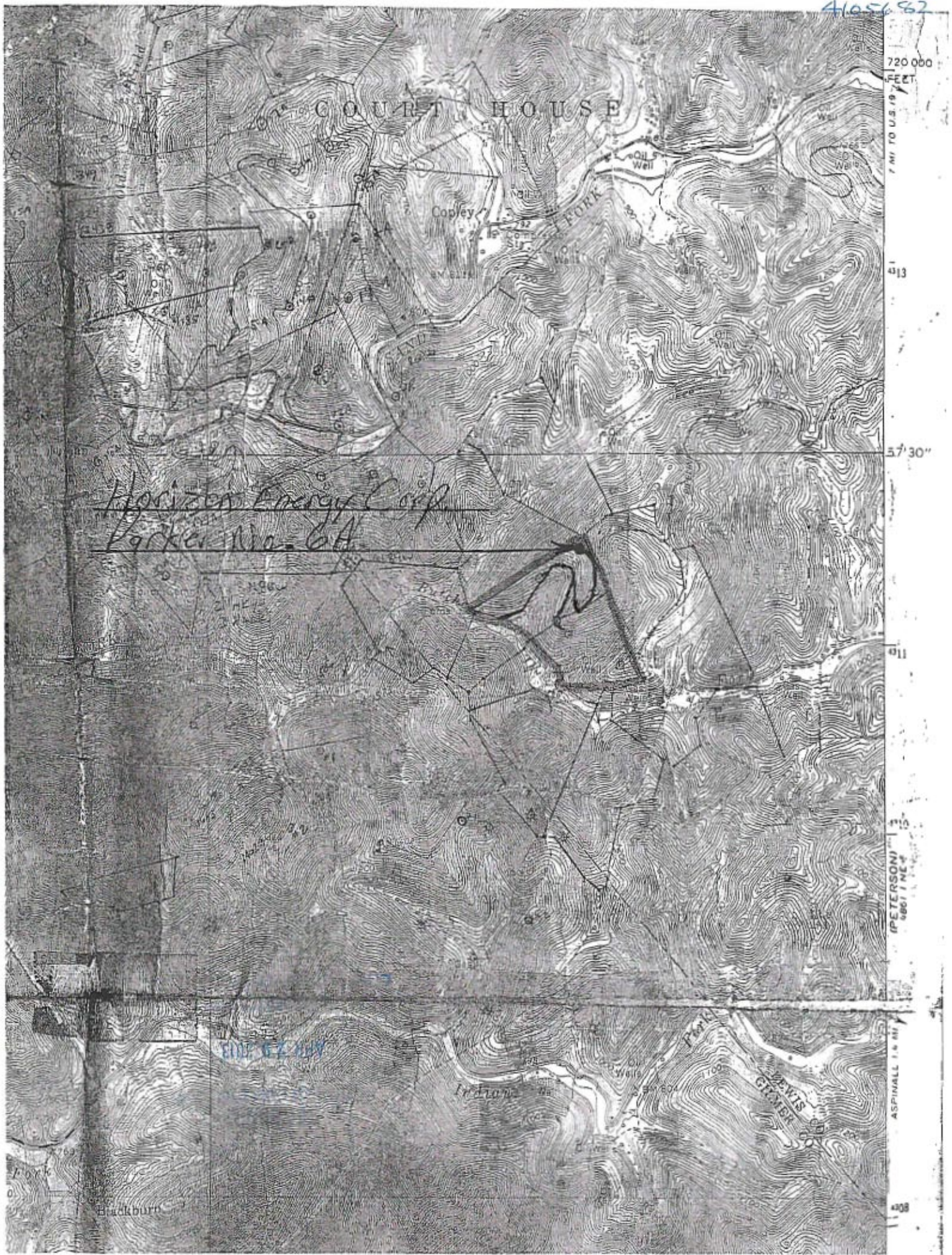
API Well Number: 47-4105682

Permit Type: Vertical Well

Date Issued: 05/23/2013

Promoting a healthy environment.

4105682



Horizon Energy Corp
Parker No. 6A

END 6-2-1987

720 000
FEET

57 30"

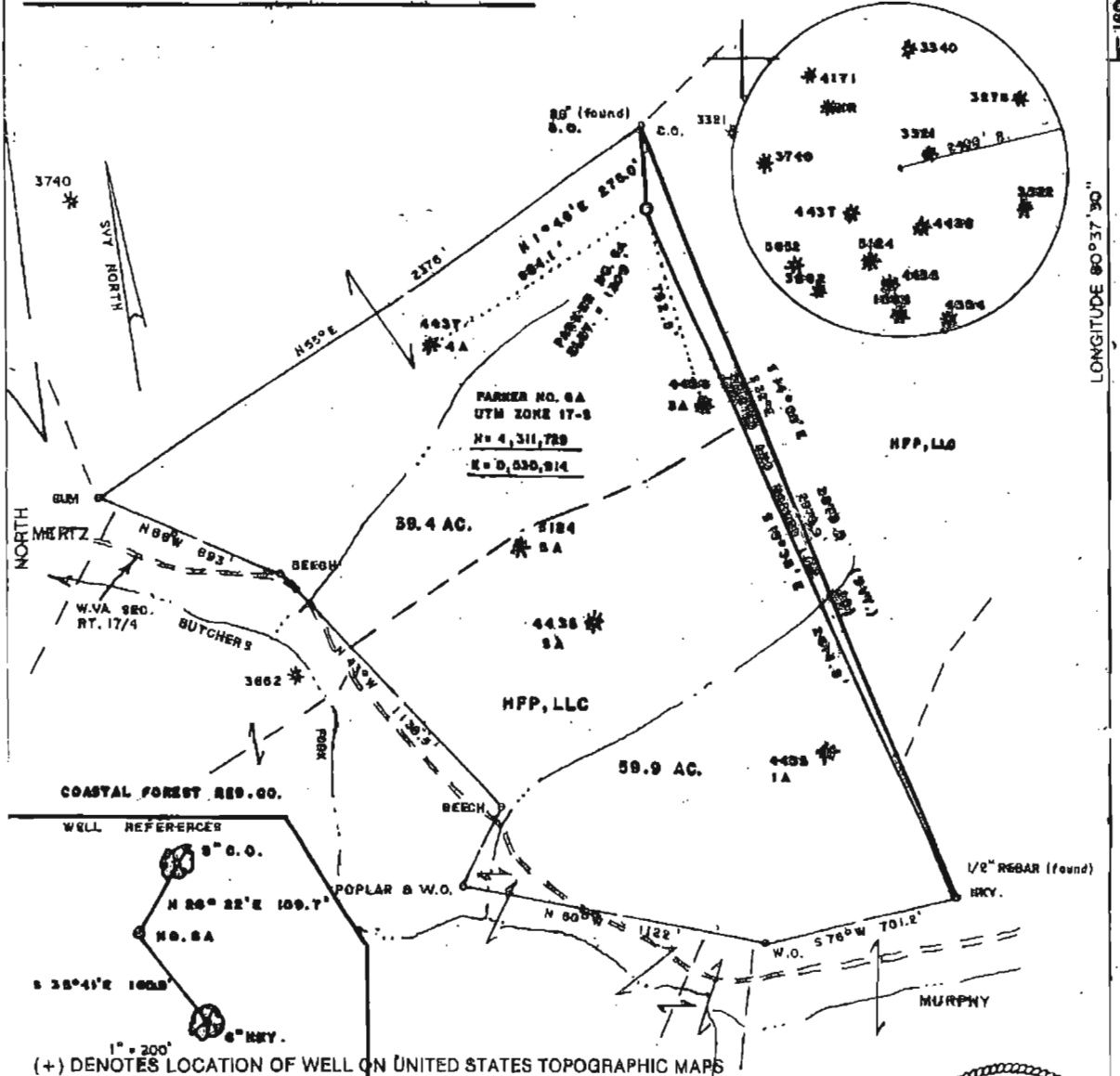
PETERSON
1967 1 IN

1 IN = 1 MI

Blackburn

PARKER LEASE 100.8 AC.

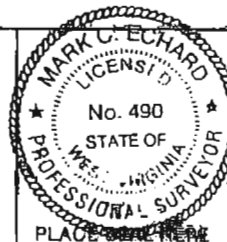
5300' W
LATITUDE 38° 57' 30"



FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF
ACCURACY 1/200
PROVEN SOURCE OF
ELEVATION SPOT ELEV. N of LEASE
ELEV. = 1322'

I THE UNDERSIGNED, HEREBY CERTIFY THAT
THIS PLAT IS CORRECT TO THE BEST OF MY
KNOWLEDGE AND BELIEF AND SHOWS ALL THE
INFORMATION REQUIRED BY LAW AND THE REGU-
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
MENT OF ENERGY.

(SIGNED) Mark C. Echard
R.P.E. _____ I.L.S. NO. 490



STATE OF WEST VIRGINIA
Division of Environmental Protection
OFFICE OF OIL AND GAS



DATE APRIL 19, 2013
OPERATOR'S WELL NO. PARKER NO. 8-A
API WELL NO. _____

WELL TYPE: OIL ☒ GAS ☒ LIQUID INJECTION _____ WASTE DISPOSAL _____
(IF "GAS,") PRODUCTION ☒ STORAGE _____ DEEP _____ SHALLOW ☒
LOCATION: ELEVATION 1322' WATERSHED BUTCHERS FORK OF SAND FORK
DISTRICT COURT HOUSE COUNTY LEWIS
QUADRANGLE QILMER 7.5'
SURFACE OWNER HPP, LLC ACREAGE 39.40
OIL & GAS ROYALTY OWNER UNITED NATIONAL BANK LEASE ACREAGE 100.8
LEASE NO. _____
PROPOSED WORK: DRILL ☒ CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR
STIMULATE ☒ PLUG OFF OLD FORMATION _____ PERFORATE NEW
FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION 5th SAND ESTIMATED DEPTH 3400'
WELL OPERATOR HORIZON ENERGY CORP. DESIGNATED AGENT ROBERT R. JONES II
ADDRESS SAND FORK ROAD BOX III ADDRESS SAND FORK ROAD BOX III
SAND FORK, WV 26430 SAND FORK, WV 26430

COUNTY MAPSHEET



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 23, 2013

WELL WORK PERMIT

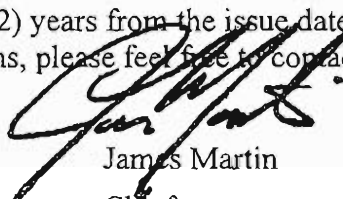
Vertical Well

This permit, API Well Number: 47-1706276, issued to DIVERSIFIED RESOURCES, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: D-180

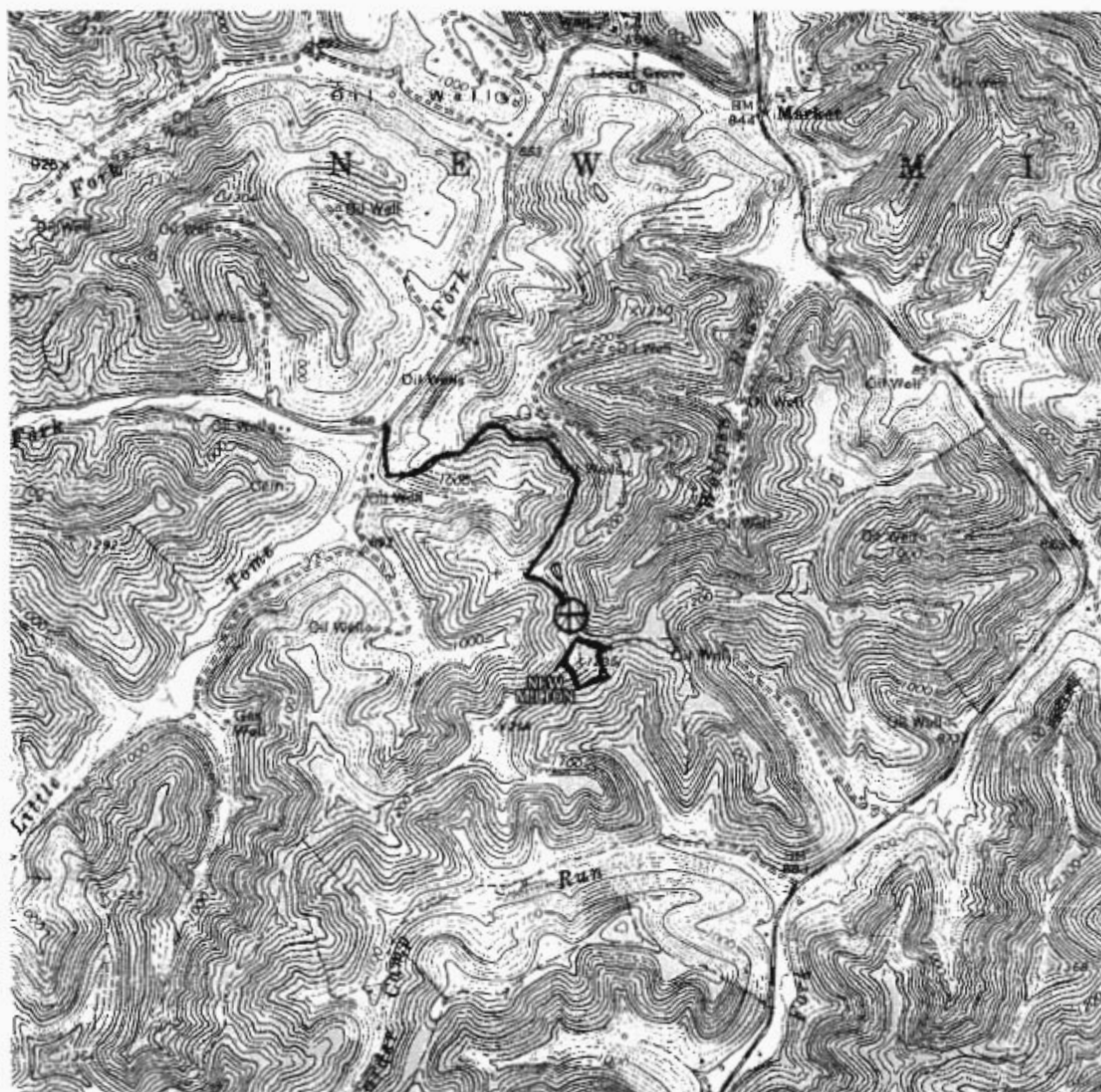
Farm Name: ROBINSON, RICHARD G.

API Well Number: 47-1706276

Permit Type: Vertical Well

Date Issued: 05/23/2013

Promoting a healthy environment.



DCU
5-2-2013
Received
Office of Oil & Gas

MAY - 8 2013

LAND SURVEYING SERVICES
21 CEDAR LANE
BRIDGEPORT, WV 26330
PHONE: 304-842-2018 OR 5762

DRAWINGS TO ACCOMPANY FORM WW-9

DIVERSIFIED RESOURCES, INC.

P. O. BOX 381087

BIRMINGHAM, AL 35238-1087

WATERSHED: LITTLE TOMS FORK

DISTRICT: NEW MILTON COUNTY: DODDRIDGE

QUADRANGLE: NEW MILTON WELL NO.: D-180

DATE: 06/19/12 PAGE of

WELL REFERENCES:

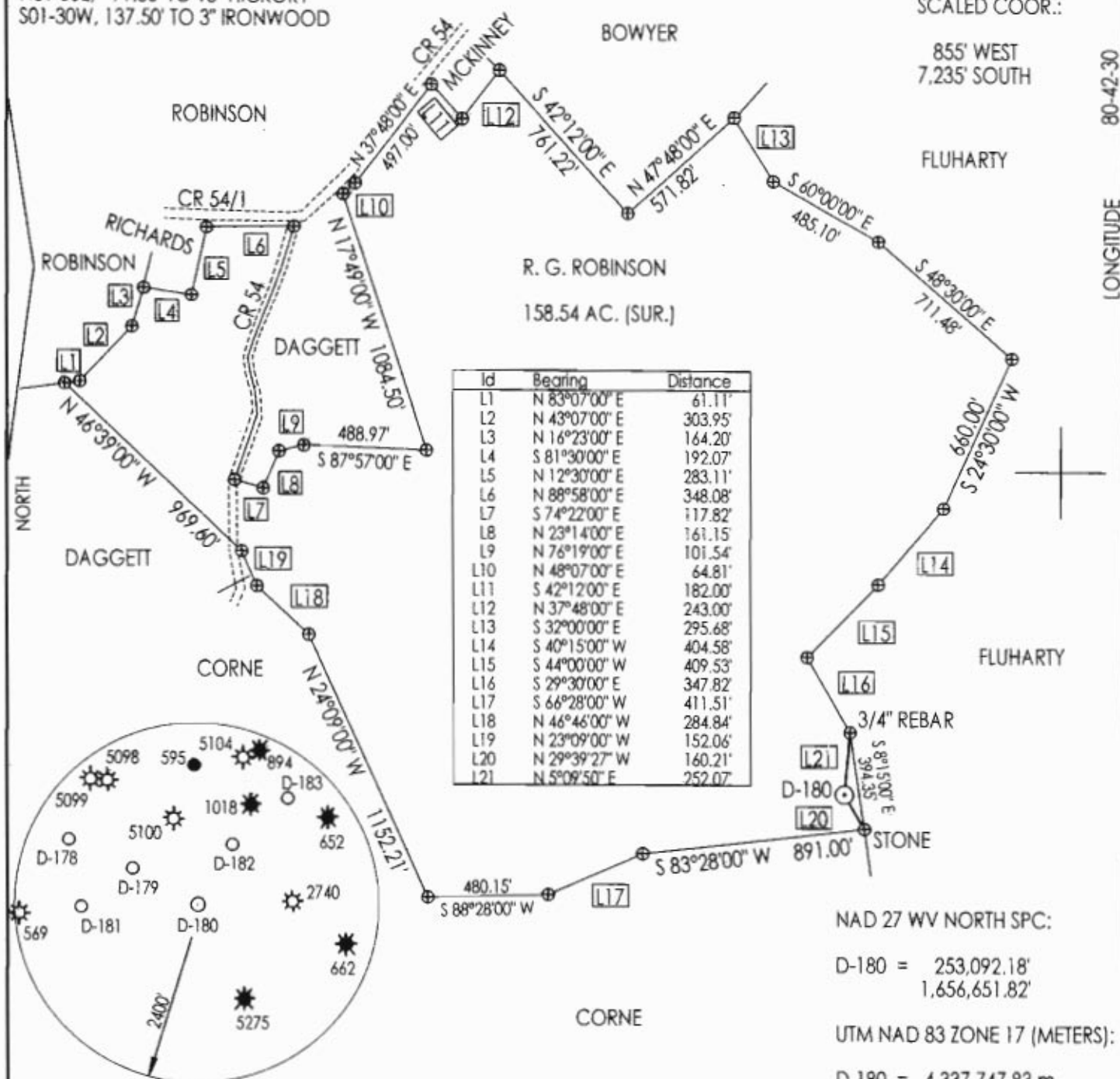
N61-00E, 91.50' TO 15" HICKORY
S01-30W, 137.50' TO 3" IRONWOOD

LATITUDE 39-12-30

SCALED COOR.:

855' WEST
7,235' SOUTH

LONGITUDE 80-42-30



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

NAD 27 WV NORTH SPC:

D-180 = 253,092.18'
1,656,651.82'

UTM NAD 83 ZONE 17 (METERS):

D-180 = 4,337,747.83 m
524,942.90 m

FILE NUMBER:

DRAWING NUMBER: DRIROBSND180.PCS

SCALE: 1" = 600'

MINIMUM DEGREE OF ACCURACY: SUBMETER

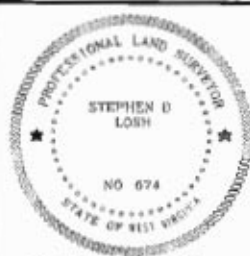
PROVEN SOURCE OF ELEVATION: DGPS SURVEY

SUBMETER SYSTEM

I THE UNDERSIGNED, HEREBY STATE THAT THIS PLAT IS CORRECT
TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE
INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND
PRESCRIBED BY THE DEPARTMENT OF ENERGY.

(SIGNED)

STEPHEN D. LOSH, P.S. #674



PLACE SEAL HERE

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
#10 MCJUNKIN ROAD
NITRO, WV 25143-2506

FORM WW-6

LAND SURVEYING SERVICES
21 CEDAR LANE, BRIDGEPORT, WV 26330
PHONE: 304-842-2018 OR 842-5762

DATE: JUNE 19, 2012

OPERATORS WELL NO.: D-180

API WELL NO.

47-017-06276
STATE COUNTY PERMIT

WELL TYPE: OIL ☒ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐ CBM ☐
(IF "GAS") PRODUCTION ☒ STORAGE ☐ DEEP ☐ SHALLOW ☒

LOCATION: ELEVATION 1208.53' WATERSHED LITTLE TOMS FORK

DISTRICT NEW MILTON COUNTY DODDRIDGE

QUADRANGLE NEW MILTON LEASE NUMBER

SURFACE OWNER RICHARD G. ROBINSON

ACREAGE 158.54 (14-09)

OIL & GAS ROYALTY OWNER RICHARD G. ROBINSON, ET. AL.

LEASE ACREAGE 172.00

PROPOSED WORK: DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒ PLUG OFF OLD FORMATION ☐
PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE (SPECIFY)

PLUG & ABANDON ☐ CLEAN OUT & REPLUG ☐

TARGET FORMATION ALEXANDER

ESTIMATED DEPTH 5,800'

WELL OPERATOR DIVERSIFIED RESOURCES, INC.

DESIGNATED AGENT RUSTY HUTSON

ADDRESS P. O. BOX 381087 BIRMINGHAM, AL 35238-1087 ADDRESS P. O. BOX 381087 BIRMINGHAM, AL 35238-1087

COUNTY NAME

PERMIT



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 23, 2013

WELL WORK PERMIT

Vertical Well

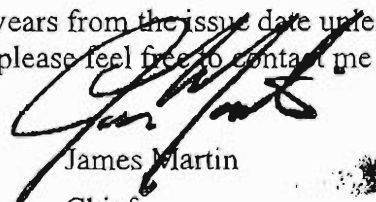
This permit, API Well Number: 47-1706277, issued to DIVERSIFIED RESOURCES, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto.

Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: D-181

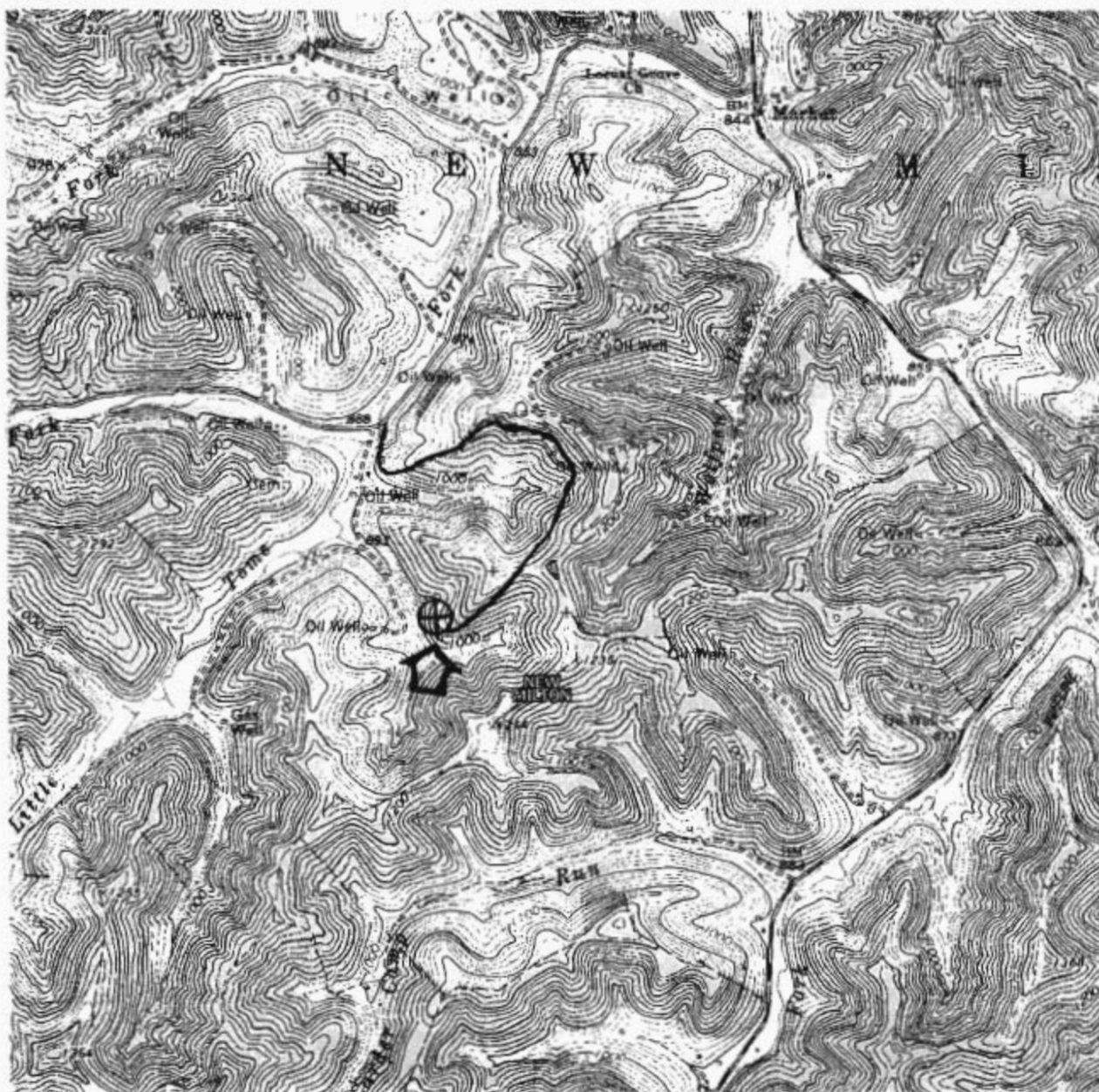
Farm Name: ROBINSON, RICHARD G.

API Well Number: 47-1706277

Permit Type: Vertical Well

Date Issued: 05/23/2013

Promoting a healthy environment.



DCN
4-2-2013

Received

MAY 10 2013

LAND SURVEYING SERVICES
21 CEDAR LANE
BRIDGEPORT, WV 26330
PHONE: 304-842-2018 OR 5762

Office of Oil and Gas
WV Dept. of Environmental Protection

DRAWINGS TO ACCOMPANY FORM WW-9

DIVERSIFIED RESOURCES, INC.

P. O. BOX 381087

BIRMINGHAM, AL 35238-1087

WATERSHED: LITTLE TOMS FORK

DISTRICT: NEW MILTON COUNTY: DODDRIDGE

QUADRANGLE: NEW MILTON WELL NO.: D-181

DATE: 06/19/12 PAGE of

WELL REFERENCES:

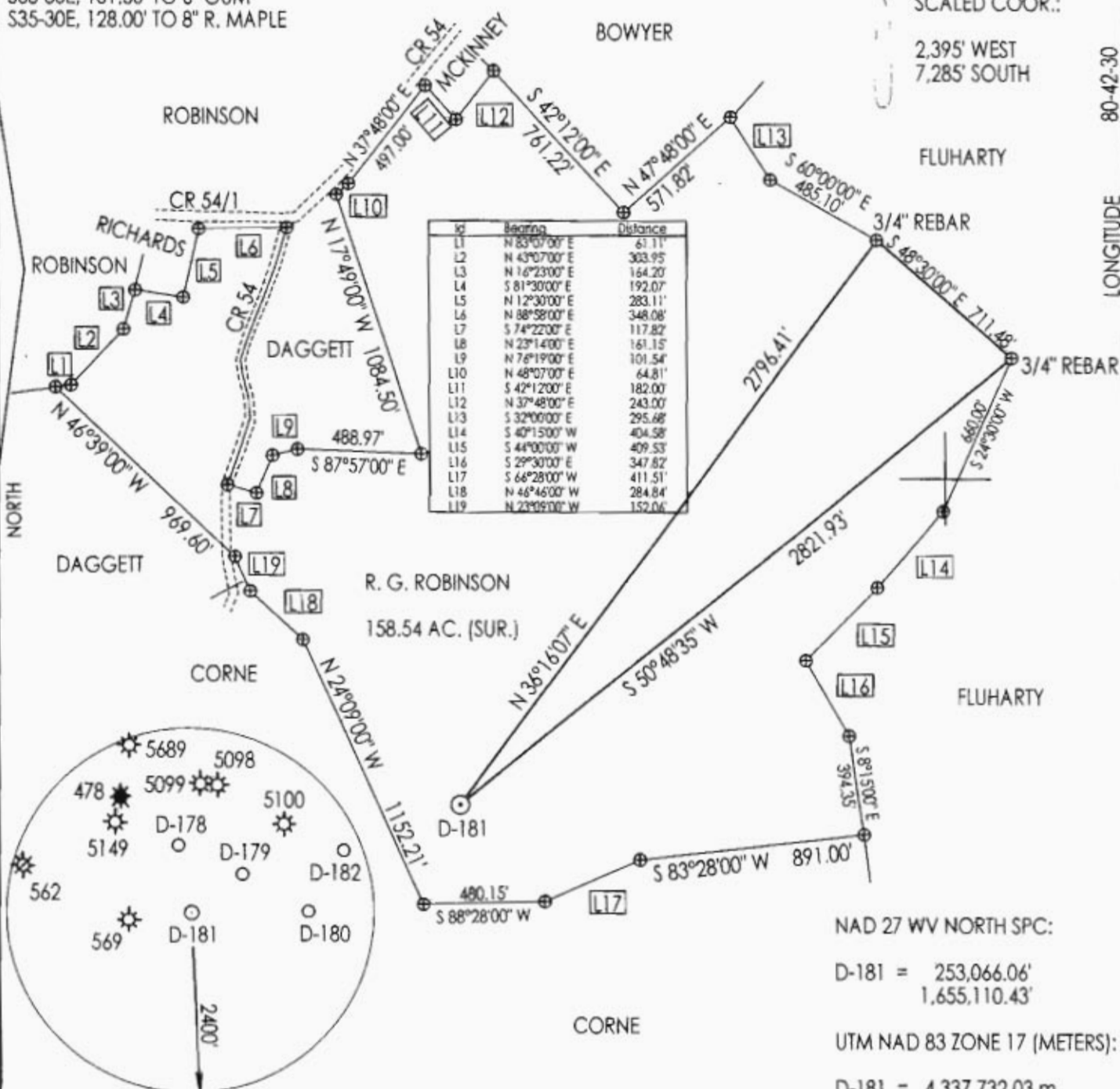
S68-30E, 101.50' TO 6" GUM
S35-30E, 128.00' TO 8" R. MAPLE

LATITUDE 39-12-30

SCALED COOR.:

2,395' WEST
7,285' SOUTH

LONGITUDE 80-42-30



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NUMBER: _____
DRAWING NUMBER: DRIROBSND181.PCS
SCALE: 1" = 600'
MINIMUM DEGREE OF ACCURACY: SUBMETER
PROVEN SOURCE OF ELEVATION: DGPS SURVEY
SUBMETER SYSTEM

I THE UNDERSIGNED, HEREBY STATE THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

(SIGNED)

STEPHEN D. LOSH, P.S. #674



PLACE SEAL HERE

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
#10 MCJUNKIN ROAD
NITRO, WV 25143-2506

FORM WW-6

LAND SURVEYING SERVICES
21 CEDAR LANE, BRIDGEPORT, WV 26330
PHONE: 304-842-2018 OR 842-5762

DATE: JUNE 19, 2012OPERATORS WELL NO.: D-181

API WELL NO.

47-017-06277

STATE COUNTY PERMIT

WELL TYPE: OIL X GAS X LIQUID INJECTION WASTE DISPOSAL CBM
(IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X

LOCATION: ELEVATION 1032.69' WATERSHED LITTLE TOMS FORKDISTRICT NEW MILTONCOUNTY DODDRIDGEQUADRANGLE NEW MILTONLEASE NUMBER SURFACE OWNER RICHARD G. ROBINSONACREAGE 158.54 (14-09)OIL & GAS ROYALTY OWNER RICHARD G. ROBINSON, ET. AL.LEASE ACREAGE 172.00

PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION
PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE (SPECIFY)

TARGET FORMATION ALEXANDERPLUG & ABANDON CLEAN OUT & REPLUG
ESTIMATED DEPTH 5,650'WELL OPERATOR DIVERSIFIED RESOURCES, INC.DESIGNATED AGENT RUSTY HUTSONADDRESS P. O. BOX 381087 BIRMINGHAM, AL 35238-1087ADDRESS P. O. BOX 381087 BIRMINGHAM, AL 35238-1087

COUNTY NAME PERMIT



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 21, 2013

WELL WORK PERMIT

Fracture

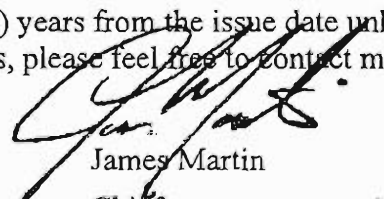
This permit, API Well Number: 47-2500035, issued to BRC OPERATING COMPANY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto.

Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: PLUM CREEK SOUTH FORK (PC)

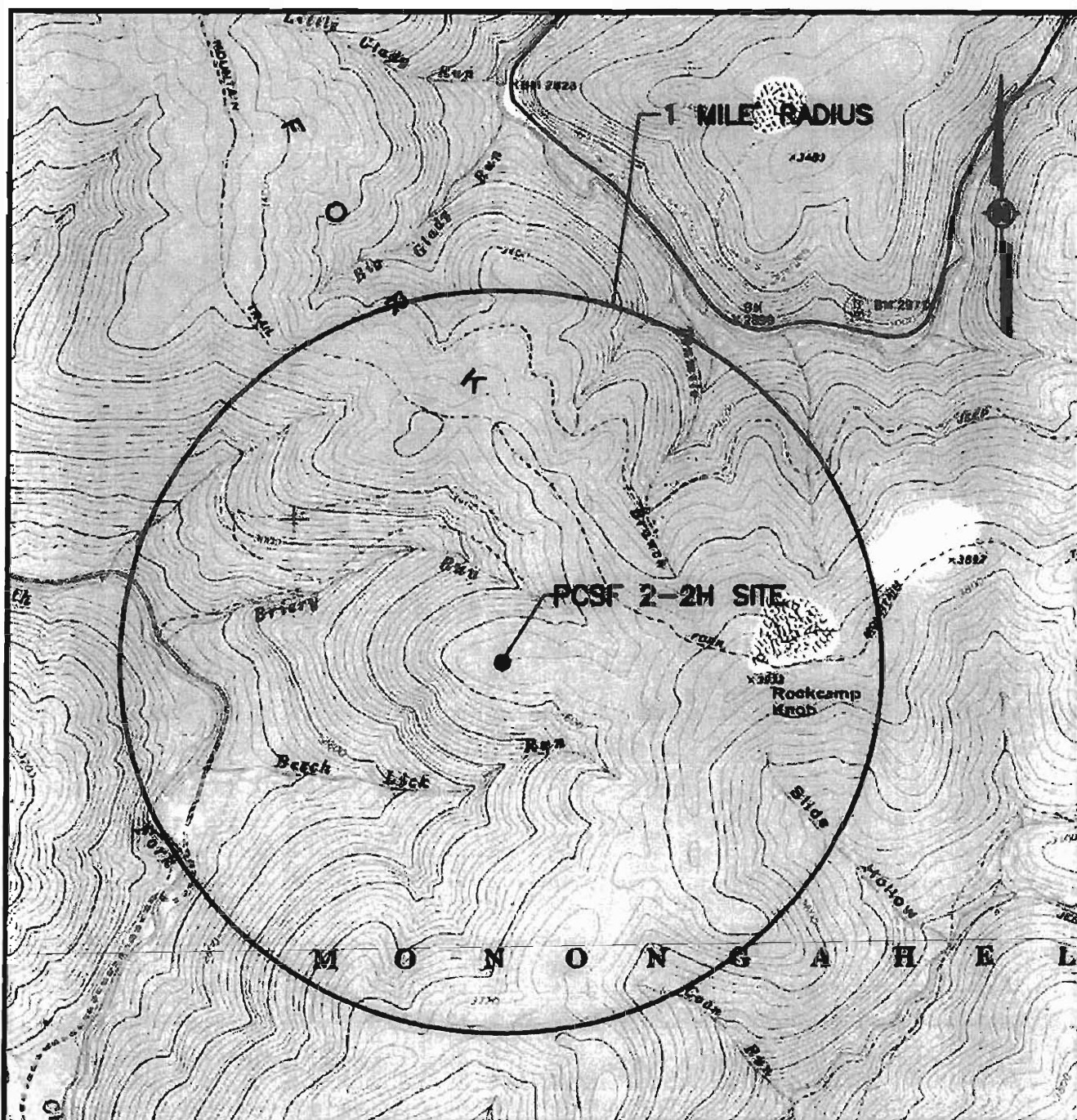
Farm Name: PLUM CREEK TIMBERLANDS, L


API Well Number: 47-2500035

Permit Type: Fracture

Date Issued: 05/21/2013

Promoting a healthy environment.



Alliance Consulting, Inc. 

Engineers
Constructors
Scientists

WELL SITE SAFETY PLAN

BLUESCAPE RESOURCES COMPANY
GAS WELL NO. PCSF 2-2H

PREPARED FOR
BLUESCAPE RESOURCE COMPANY
DALLAS, TEXAS

DRAWN BY	RCD	05/02/13
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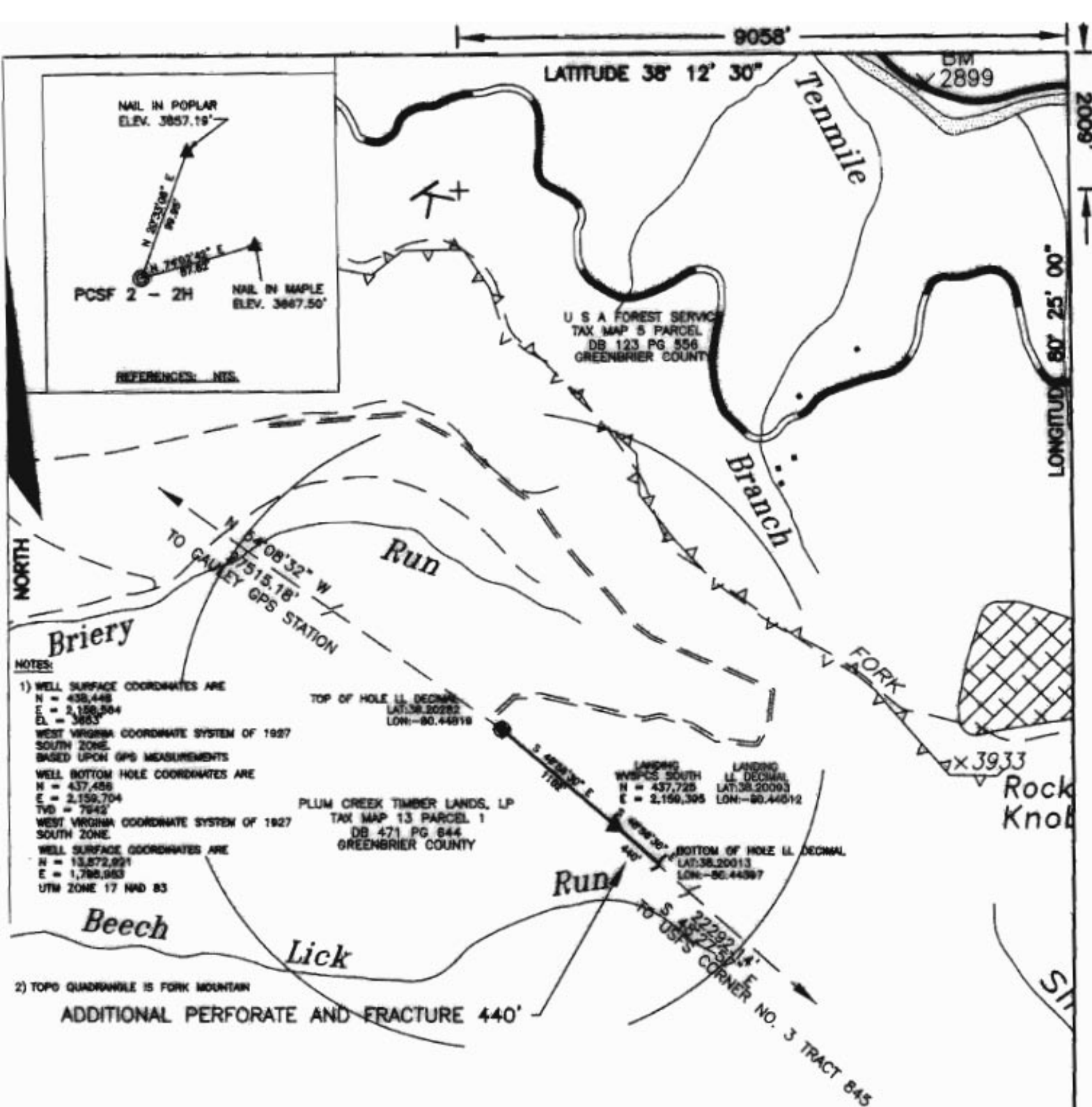
CHECKED BY

APPROVED BY

DRAWING NUMBER	1
	2

FIGURE
NUMBER

W10-290-A85



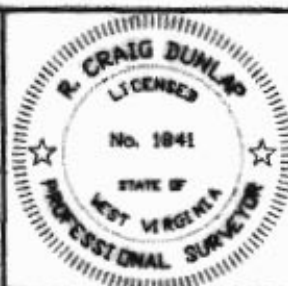
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC

FILE NO. W10-290-1813
DRAWING NO. W10-290-AB4
SCALE 1"=1000'
MINIMUM DEGREE OF
ACCURACY 1:2500
PROVEN SOURCE OF
ELEVATION GPS
GLOBAL POSITIONING SYSTEM

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT
IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF
AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND
THE REGULATIONS ISSUED AND PRESCRIBED BY THE
DIVISION OF ENVIRONMENTAL PROTECTION.

(SIGNED) R. G. Dunlap

PROFESSIONAL SURVEYOR No. 1841



WVDEP
OFFICE OF OIL AND GAS
1356 HANSFORD ST.
CHARLESTON, WV 25301



DATE MAY, 2013
OPERATOR'S WELL NO. PCSF 2 - 2H
API WELL NO.

47-025-00035
STATE COUNTY PERMIT

WELL TYPE: OIL GAS X CBM LIQUID INJECTION WASTE DISPOSAL
(IF "GAS,") PRODUCTION X STORAGE DEEP SHALLOW X
LOCATION: ELEVATION 3700± WATERSHED SOUTH FORK OF CHERRY RIVER
DISTRICT FALLING SPRINGS COUNTY GREENBRIER
QUADRANGLE FORK MOUNTAIN ACREAGE 21527
SURFACE OWNER PLUM CREEK TIMBERLANDS, LP LEASE ACREAGE 21527
OIL & GAS ROYALTY OWNER HIGHLAND RESOURCES INC., & BRC APPALACHIAN MINERALS I, LLC, & OXY USA, INC.
PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE
IN WELL (SPECIFY)
PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION Marcellus Shale
ESTIMATED DEPTH TVD = 7942' TMD = 8840'

WELL OPERATOR BRC OPERATING COMPANY, LLC
ADDRESS 200 CRESCENT COURT, SUITE 200
DALLAS, TX 75201

DESIGNATED AGENT MARC MONTELEONE
ADDRESS 600 QUARRIER STREET
CHARLESTON, WV 25325



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 22, 2013

WELL WORK PERMIT

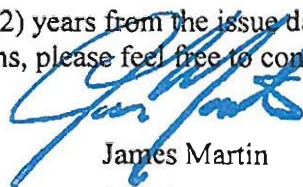
Re-Work

This permit, API Well Number: 47-7900261, issued to COLUMBIA GAS TRANSMISSION, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

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In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: LANHAM 7145
Farm Name: IRVINE, KEVIN L., ETAL
API Well Number: 47-7900261
Permit Type: Re-Work
Date Issued: 05/22/2013

Promoting a healthy environment.

7900261

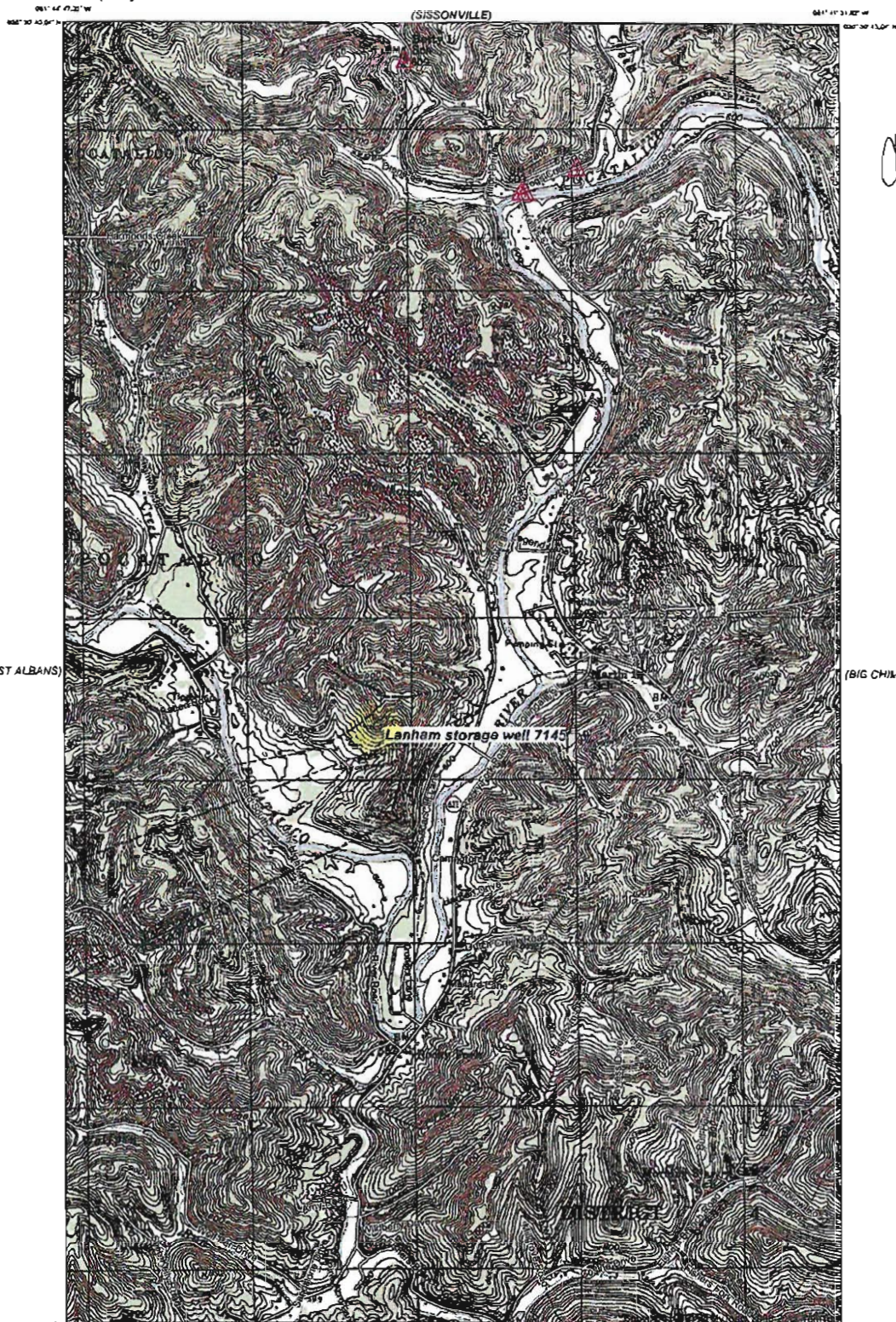
7900261

(BANCROFT)



POCATALICO (WV) QUADRANGLE
WEST VIRGINIA
TOPOGRAPHIC SERIES

(ROMANCE)



(ALUM CREEK)

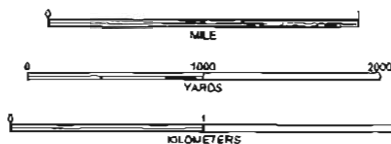
Produced by MyTopo Terrain Navigator
Topography based on USGS 1:24,000 Maps
North American 1983 Datum (NAD83)
Lambert Conformal Conic Projection
To place on the prefigured North American 1927 map, the
projection lines 11M N and 13M E

Declination

GN
MN
GN 0.45° W
MN 7.56° W

(CHARLESTON WEST)

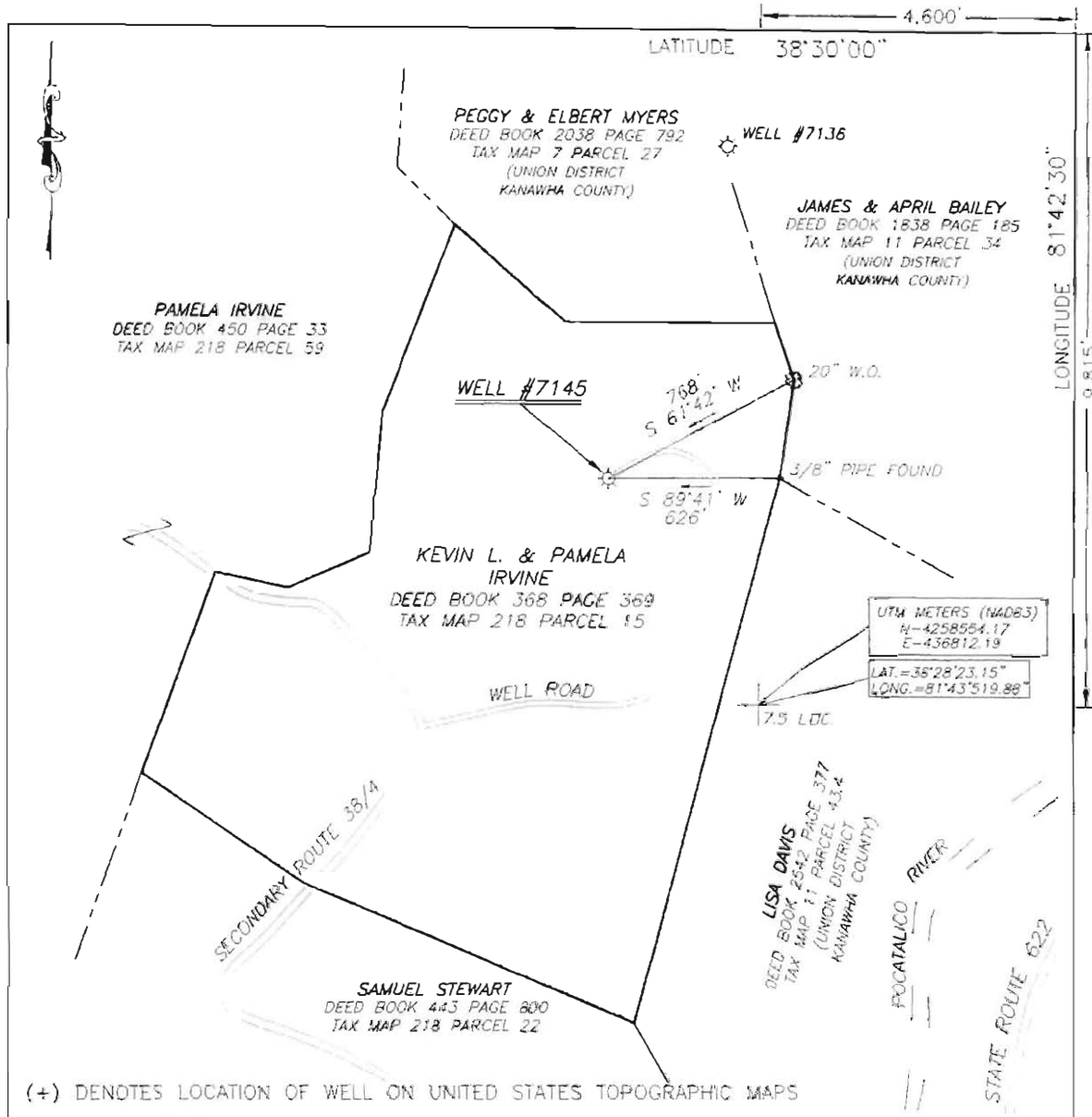
SCALE 1:24000



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM 1929

POCATALICO (WV), WV
1999

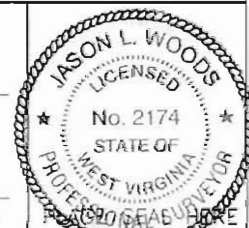
(CHARLESTON EAST)



FILE No. 13-100-012
DRAWING No. 13-100-012
SCALE 1"=500'
MINIMUM DEGREE OF
ACCURACY 1:200
PROVEN SOURCE OF
ELEVATION TRIMBLE PRO XH
GPS UNIT

I THE UNDERSIGNED, HEREBY CERTIFY THAT
THIS PLAT IS CORRECT TO THE BEST OF MY
KNOWLEDGE AND BELIEF AND SHOWS ALL THE
INFORMATION REQUIRED BY LAW AND THE REGU-
LATIONS ISSUED AND PRESCRIBED BY THE
DIVISION OF ENVIRONMENTAL PROTECTION.

(SIGNED) Jason L. Woods PS #2174



STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
MTRQ, WV



DATE MARCH 25 20 13
OPERATOR'S WELL No. 7145
API WELL No.

WELL TYPE: OIL ☐ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐
(IF "GAS") PRODUCTION ☐ STORAGE ☒ DEEP ☐ SHALLOW ☐
LOCATION: ELEVATION 840 WATER SHED POCATALICO RIVER
DISTRICT POCA COUNTY PUTNAM
QUADRANGLE POCATALICO
SURFACE OWNER KEVIN L. & PAMELA J. IRVINE ACREAGE 67.91
OIL & GAS ROYALTY OWNER PEARL W. MELTON et al LEASE ACREAGE 147
LEASE No. 41162
PROPOSED WORK: DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR
STIMULATE ☐ PLUG OFF OLD FORMATION ☐ PERFORATE NEW
FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ACIDIZE

PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG ☐
TARGET FORMATION BIG LIME ESTIMATED DEPTH 1900
WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT PAUL AMICK
ADDRESS PO BOX 1273, CHARLESTON, WV ADDRESS P.O. BOX 1273, CHARLESTON W.V.
25325-1273 25325-1273

FORM IV-5 (8-78)



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 23, 2013

WELL WORK PERMIT

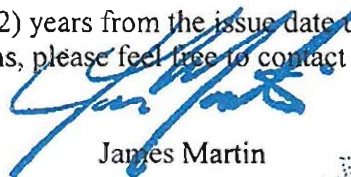
Re-Work

This permit, API Well Number: 47-8504774, issued to VIKING INTERNATIONAL RESOURCES CO. INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

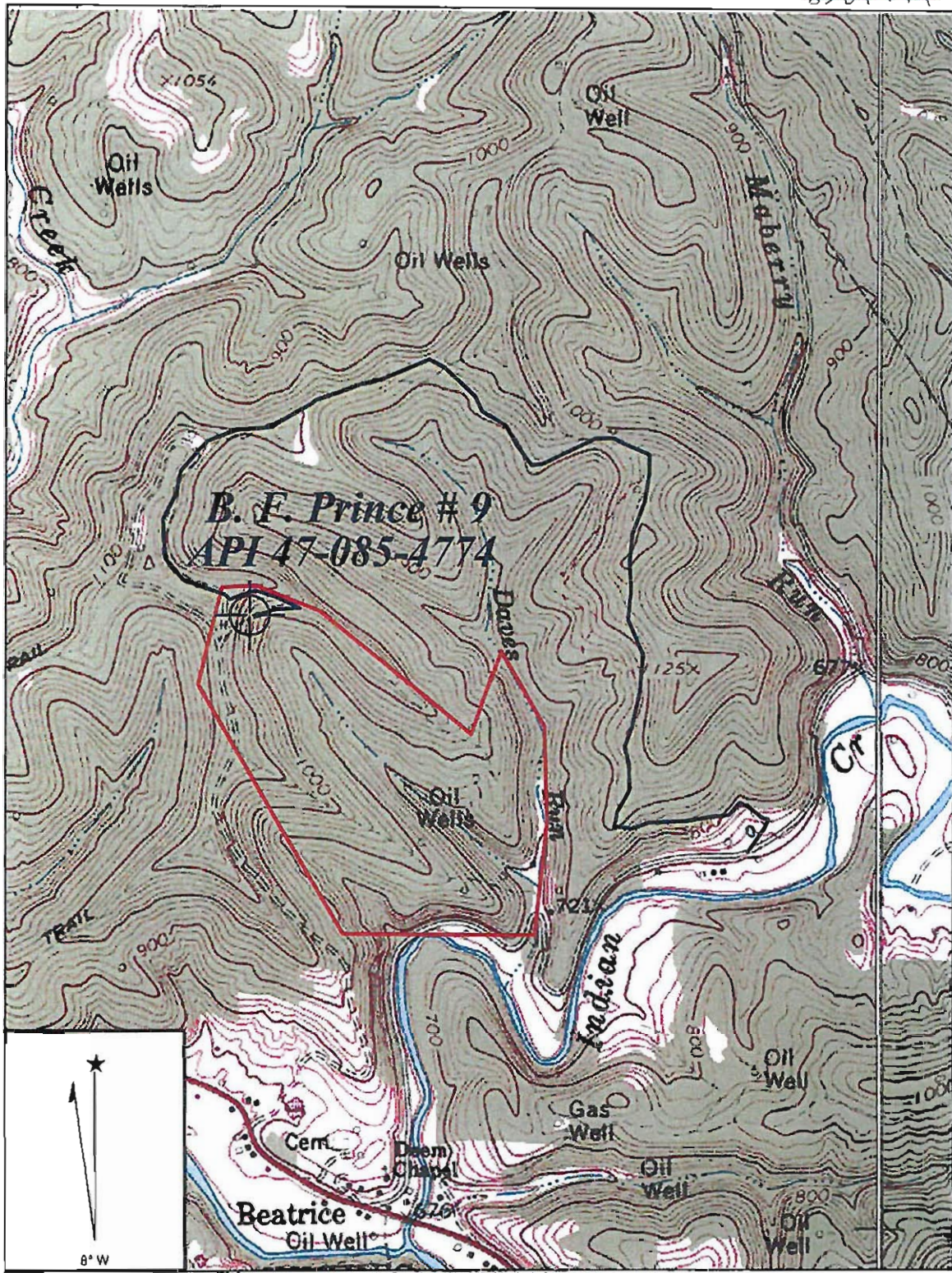
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: 9
Farm Name: WESTVACO CORPORATION
API Well Number: 47-8504774
Permit Type: Re-Work
Date Issued: 05/23/2013

Promoting a healthy environment.



MACFARLAN QUADRANGLE

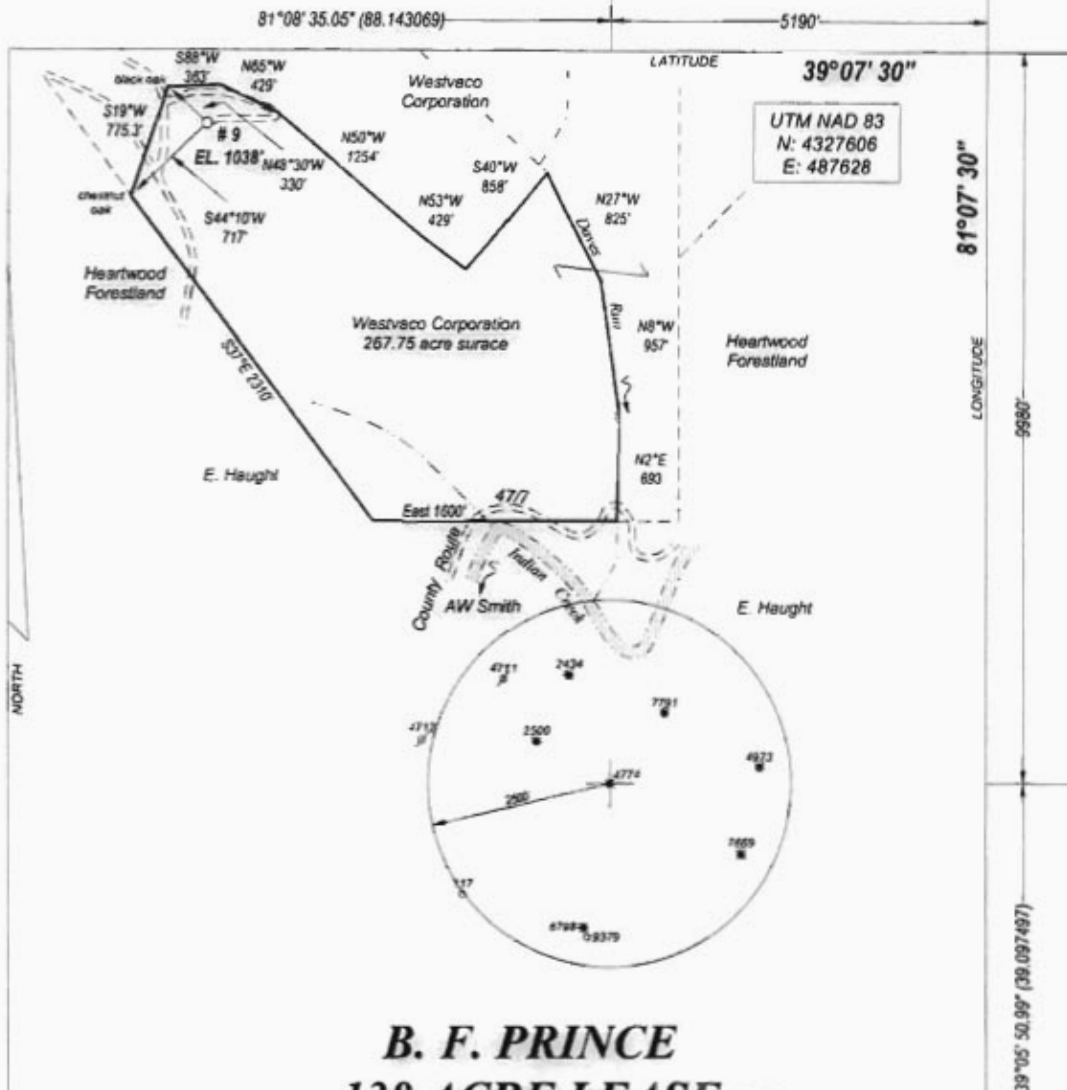
SCALE 1" = 1000'

VIRCO, INC.

WELL: B. F. PRINCE #9 API 47-085-4774
B. F. PRINCE 138 ACRE LEASE

GRANT DISTRICT RITCHIE COUNTY WEST VIRGINIA

RECEIVED
FEB 10 1988



B. F. PRINCE **138 ACRE LEASE**

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE
OF ACCURACY 1:200
PROVEN SOURCE
OF ELEVATION GPS
OBSERVATION

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS
PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF AND SHOWS ALL THE INFORMATION
REQUIRED BY LAW AND THE REGULATIONS ISSUED
AND PRESCRIBED BY THE DEPARTMENT OF ENERGY

(SIGNED)

PROFESSIONAL SURVEYOR: 551



STATE OF WEST VIRGINIA **DEPARTMENT OF ENERGY** **DIVISION OF OIL AND GAS**

DATE APRIL 22ND, 2013
OPERATORS WELL NO. B.F. PRINCE # 9

API 47 - 085 - 04774 *REWORK*

WELL TYPE: OIL XX GAS XX LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF GAS) PRODUCTION XX STORAGE ___ DEEP ___ SHALLOW XX

LOCATION: ELEVATION 1038' WATER SHED DAVES RUN OF INDIAN CREEK
DISTRICT MURPHY COUNTY MITCHELL QUADRANGLE MACFARLAN

SURFACE OWNER WESTVACO CORPORATION ACREAGE 267.75
OIL & GAS ROYALTY DONNA J. EARHART, MARILYN W. ROBINETT, ET AL LEASE AC. 138

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___
FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___
OTHER PHYSICAL CHANGE IN WELL NITROGEN SOLVENT CLEANOUT
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

TARGET FORMATION BIG INJUN & FIFTH SAND ESTIMATED DEPTH 2921'

WELL OPERATOR VIRCO, INC. DESIGNATED AGENT KIMBERLY ARNOLD
ADDRESS 125 PUTNAM STREET ADDRESS P.O. BOX 154
MARIETTA, OH 45750 WAVERLY, WV 26184



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 23, 2013

WELL WORK PERMIT

Re-Work

This permit, API Well Number: 47-8507559, issued to VIKING INTERNATIONAL RESOURCES CO. INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: MAZE 3

Farm Name: CRONENBERGER, KENNETH D.

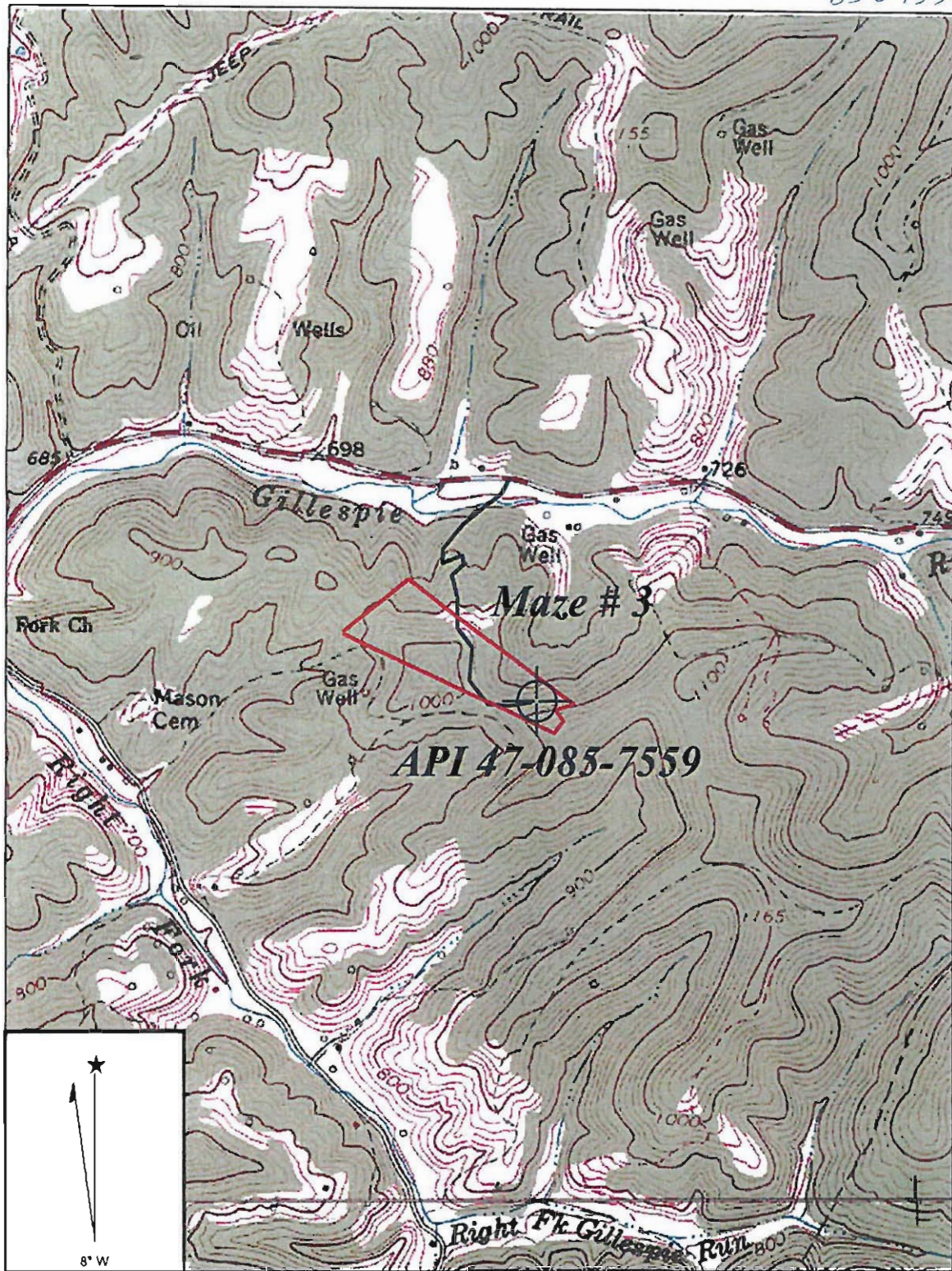
API Well Number: 47-8507559

Permit Type: Re-Work

Date Issued: 05/23/2013

Promoting a healthy environment.

8507559



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CAIRO QUADRANGLE

SCALE 1" = 1000'

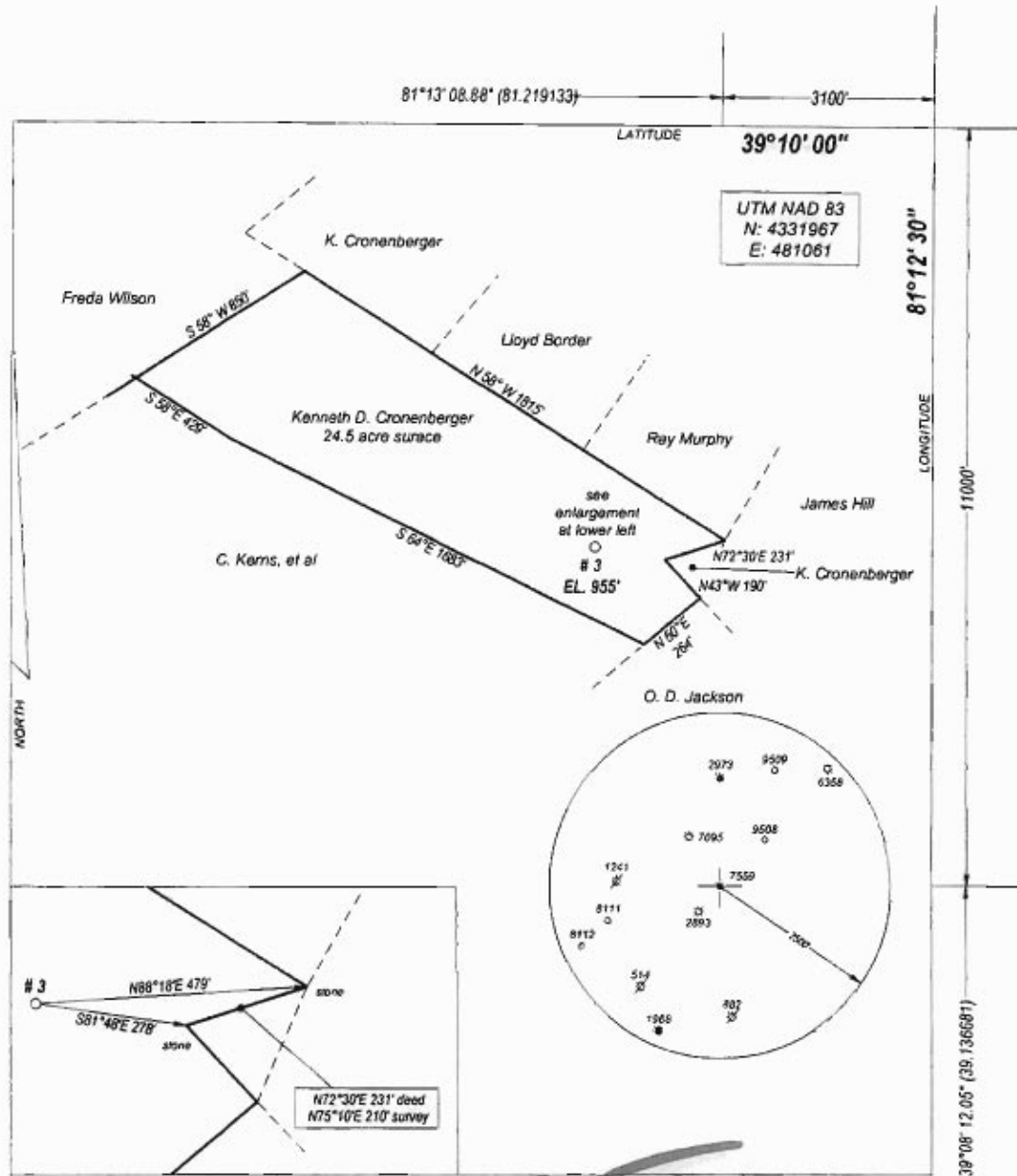
VIRCO, INC.

WELL: MAZE #3 API 47-085-7559
MAZE 24.5 ACRE LEASE

GRANT DISTRICT RITCHIE COUNTY WEST VIRGINIA

RECEIVED
Office of Oil & Gas
MAY 1 2013
Department of
Environmental Protection

C. Dell



FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE
OF ACCURACY 1 : 200
PROVEN SOURCE
OF ELEVATION GPS
OBSERVATION

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS
PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF AND SHOWS ALL THE INFORMATION
REQUIRED BY LAW AND THE REGULATIONS ISSUED
AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

(SIGNED) _____

PROFESSIONAL SURVEYOR: 551



STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

DATE APRIL 9TH, 2013

OPERATORS WELL NO. MAZE # 3

API 47 - 085 - 7559
STATE COUNTY PERMIT

new old

WELL TYPE: OIL XX GAS XX LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION XX STORAGE DEEP SHALLOW XX

LOCATION: ELEVATION 955' WATER SHED GILLESPIE RUN
DISTRICT GRANT COUNTY MITCHELL QUADRANGLE CAIRO

SURFACE OWNER KENNETH D. & VIRGINIA L. CRONENBERGER ACREAGE 24.5
OIL & GAS ROYALTY CHARLES MIDDLETON & VIRCO ROYALTIES LEASE AC 24.5

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL
FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
PERFORATE NEW FORMATION
OTHER PHYSICAL CHANGE IN WELL NITROGEN SOLVENT CLEANOUT
PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION MAXTON SANDSTONE ESTIMATED DEPTH 2055'

WELL OPERATOR VIRCO, INC. DESIGNATED AGENT KIMBERLY ARNOLD
ADDRESS 125 PUTNAM STREET ADDRESS P. O. BOX 154
MARIETTA, OH 45750 WAVERLY, WV 26184



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 23, 2013

WELL WORK PERMIT

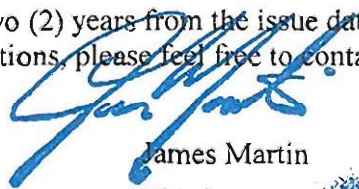
Re-Work

This permit, API Well Number: 47-8507568, issued to VIKING INTERNATIONAL RESOURCES CO. INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

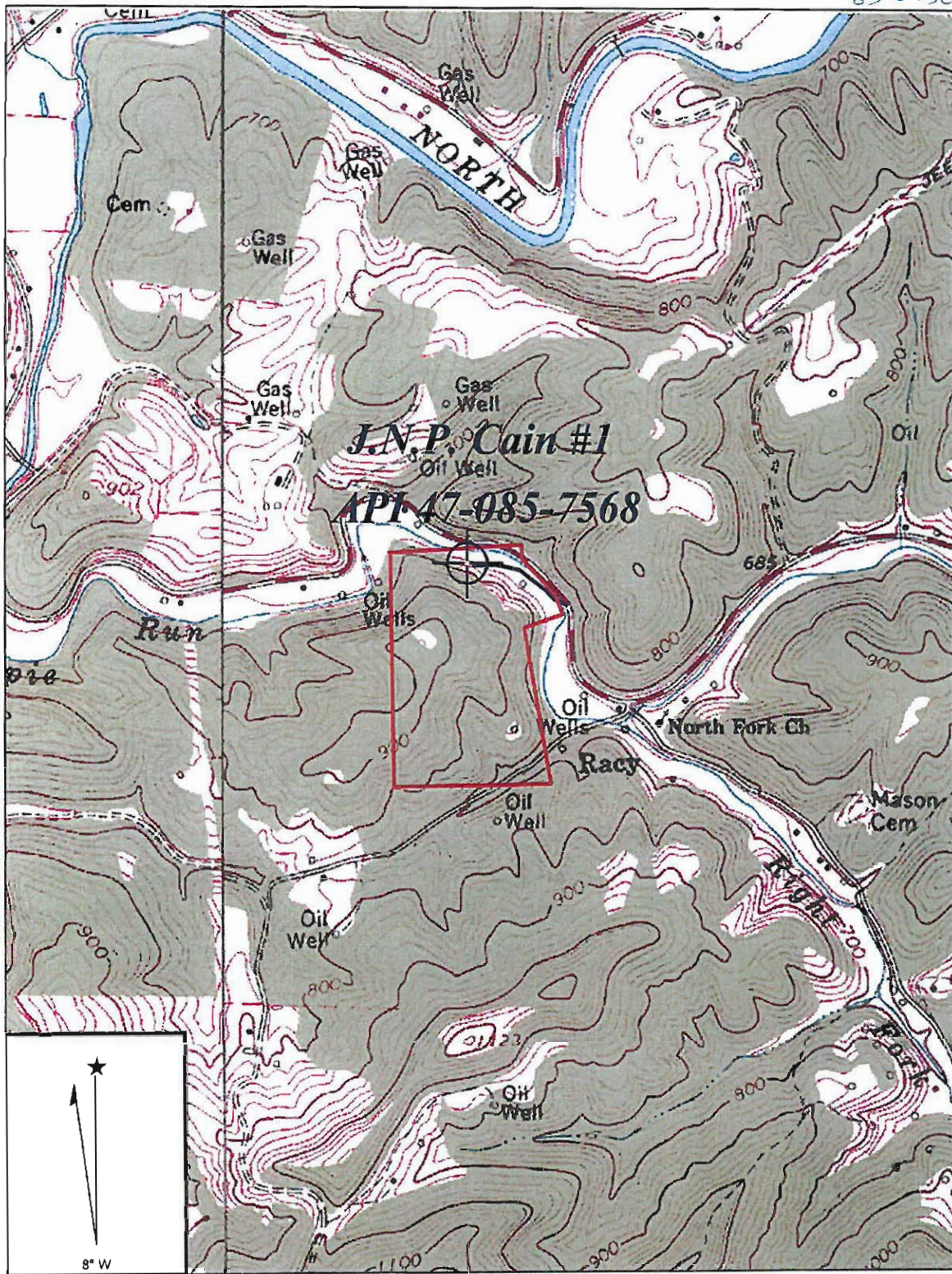
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: J. CAIN 1
Farm Name: RUPERT, WILLIAM D.
API Well Number: 47-8507568
Permit Type: Re-Work
Date Issued: 05/23/2013

Promoting a healthy environment.



RECEIVED

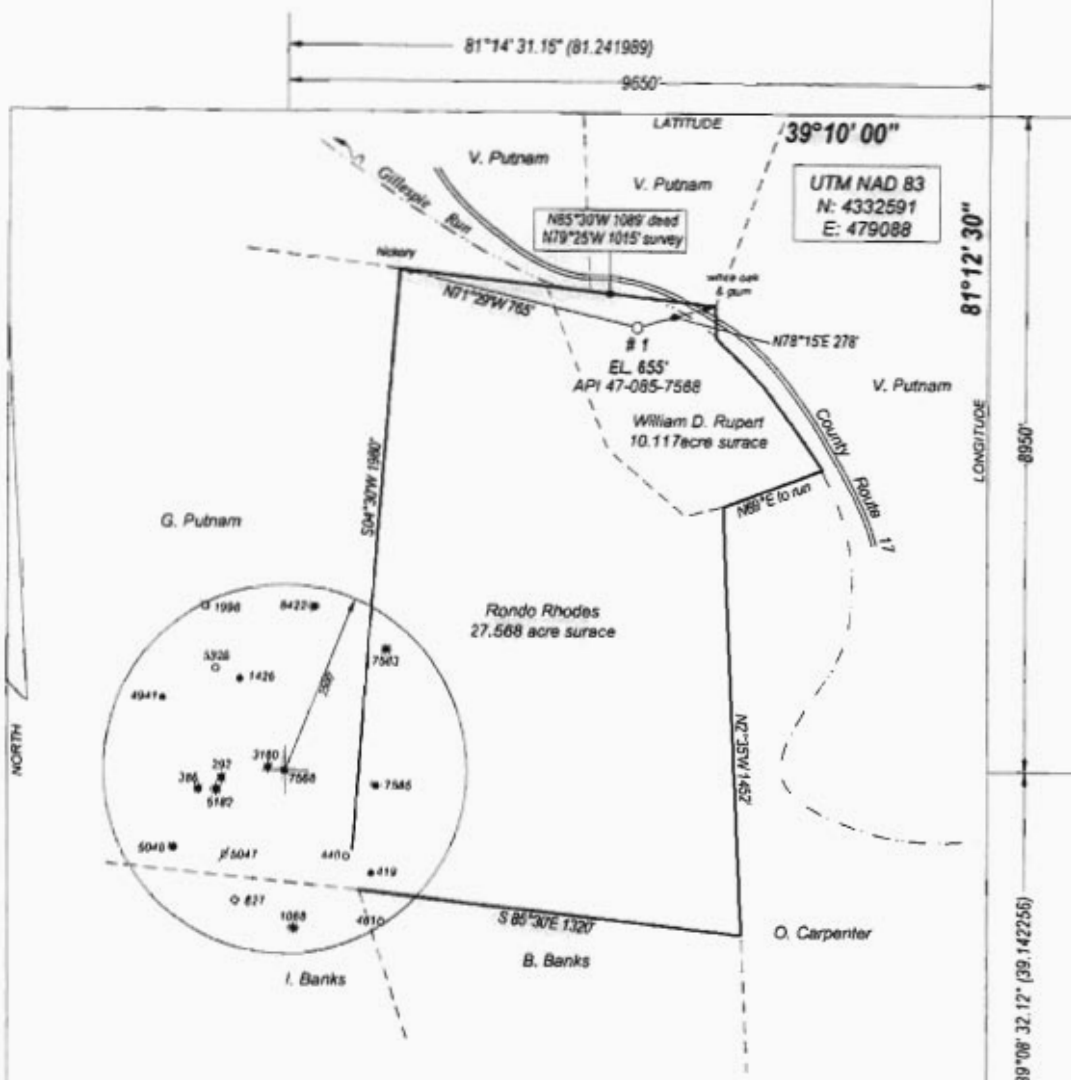
CAIRO QUADRANGLE

SCALE 1" = 1000'

VIRCO, INC.

WELL: J.W.P. CAIN #1 API 47-085-7568
 A. HART 56.75 ACRE LEASE

GRANT DISTRICT RITCHIE COUNTY WEST VIRGINIA



J. W. P. CAIN **56.75 ACRE LEASE**

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY ORIGINAL
PROVEN SOURCE OF ELEVATION GPS
OBSERVATION

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

(SIGNED) _____
PROFESSIONAL SURVEYOR: 551



STATE OF WEST VIRGINIA **DEPARTMENT OF ENERGY** **DIVISION OF OIL AND GAS**

DATE APRIL 8TH 2013
OPERATORS WELL NO. J.W.P. CAIN # 1

API 47 - 085 - 7568
STATE COUNTY PERMIT

REWORK

WELL TYPE: OIL XX GAS XX LIQUID INJECTION XX WASTE DISPOSAL XX
(IF GAS) PRODUCTION XX STORAGE XX DEEP XX SHALLOW XX

LOCATION: ELEVATION 655' WATER SHED GILLESPIE RUN
DISTRICT GRANT COUNTY RITCHIE QUADRANGLE CAIRO

SURFACE OWNER WILLIAM D. RUPERT ACREAGE 10.117
OIL & GAS ROYALTY DELORIS KANEFF & RON HALL LEASE AC. 56.75

PROPOSED WORK: DRILL XX CONVERT XX DRILL DEEPER XX REDRILL XX
FRACTURE OR STIMULATE XX PLUG OFF OLD FORMATION XX
PERFORATE NEW FORMATION XX
OTHER PHYSICAL CHANGE IN WELL XX NITROGEN SOLVENT CLEANOUT XX
PLUG AND ABANDON XX CLEAN OUT AND REPLUG XX

TARGET FORMATION RIG IN JUN ESTIMATED DEPTH 2119'

WELL OPERATOR VIRCO, INC. DESIGNATED AGENT KIMBERLY ARNOLD
ADDRESS 125 PUTNAM STREET ADDRESS P.O. BOX 154
MARIETTA, OH 45750 WAVERLY, WV 26184

FORM WV-6

COUNTY NAME PREMIT



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

May 23, 2013

WELL WORK PERMIT

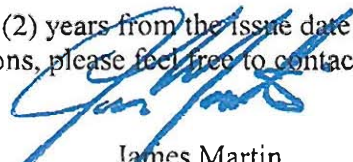
Re-Work

This permit, API Well Number: 47-8507605, issued to VIKING INTERNATIONAL RESOURCES CO. INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

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In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

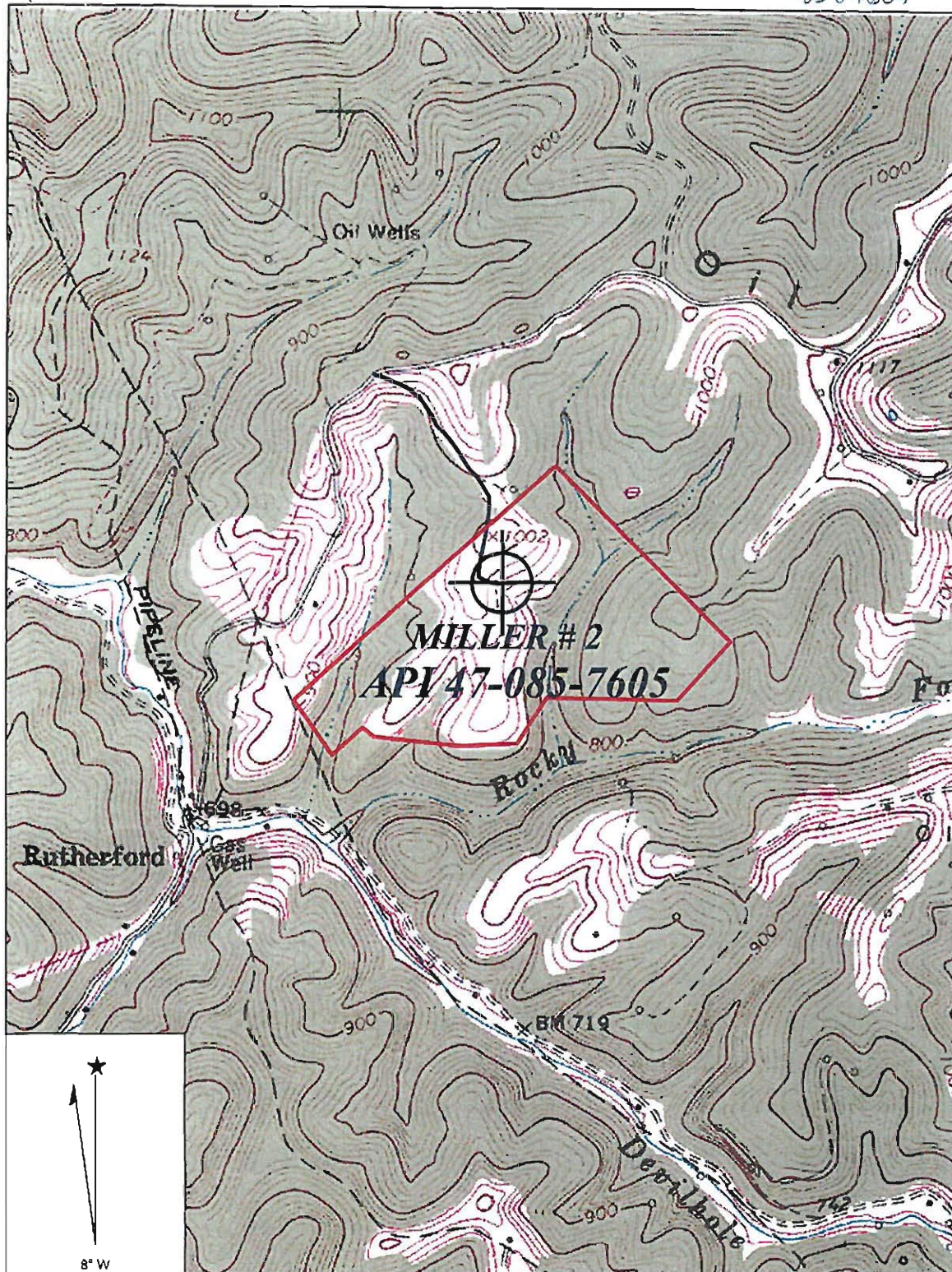
Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: BETHEL-MILLER 2
Farm Name: YOST, THOMAS & MARIJANE
API Well Number: 47-8507605
Permit Type: Re-Work
Date Issued: 05/23/2013

Promoting a healthy environment.



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CAIRO QUADRANGLE

SCALE 1" = 1000'

VIRCO, INC.

WELL: MILLER # 2 API 47-085-7605
 BETHEL MILLER HEIRS 103.67 ACRE LEASE

GRANT DISTRICT RITCHIE COUNTY WEST VIRGINIA

RECEIVED

FEDERAL BUREAU OF INVESTIGATION

JAN 1 1998

Environmental

39°09' 22.29" (39.156192)-

COUNTY NAME	PERCENT
1	1